

**INTRO TO STATISTICS & DATA ANALYSIS**

Uses real data and attention-grabbing examples to introduce students to the study of statistics and data analysis. Includes coverage of the graphing calculator and includes expanded coverage of probability. This text guides students through an intuition-based learning process that stresses interpretation and communication of statistical information.

Contract Price

\$99.75

Grade

9,10,11,12

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Teacher Edition

9780495118923

\$25.00

Instructor's Resource Binder, Intro to Statistics &amp; Data Analysis

TYPE

P1

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Essential Items

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Ancillary ItemsCopyright

2008

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Free with Purchase itemsAuthor

Peck/ Olsen

Edition

3rd

Content

Statistics

Readability

10.5

Accessibility

Nimas

Research

Evaluation Tool for Basal Instructional Materials  
Mathematics (2009 – 2015)

Provided by the Publisher	ISBN 9780495118787		Publisher - <b>Cengage Learning</b>		Provided by the Publisher
	<b>INTRO TO STATISTICS &amp; DATA ANALYSIS</b>				
	Type - P1	Author - Peck/ Olsen			
	Copyright - 2008	Edition - 3rd	Readability - 10.5		
	Course - Statistics		Grade(s) - 9,10,11,12		
Teacher Edition ISBN if applicable ..... 9780495118923					

**Overall Recommendation:**

**Recommended as BASAL**

**Overall Strengths, Weaknesses, Comments:**

if this box is not checked, the evaluators have  
chosen NOT recommend as basal

**This book can be used as an AP Statistics book or for higher-level statistics. The reading level may be too advanced for younger students, but all necessary content is available. The ancillary resources enhance the book greatly.**

NIMAC Accessibility      N  
Ancillary                      Yes  
Free with Purchase        Yes  
Research                      No

Uses real data and attention-grabbing examples to introduce students to the study of statistics and data analysis. Includes coverage of the graphing calculator and includes expanded coverage of probability. This text guides students through an intuition-based learning process that stresses interpretation and communication of statistical information.

**CRITERIA**

This basal resource ...

**A. Encompasses KY Content Standards & Grade Level Expectations    Strong Evidence**

Text is designed to be used in an elective course outside the Program of Studies

**1) Includes the 5 Big Ideas of mathematics to the following extent:**

- |  |                 |
|--|-----------------|
| <b>a) Number Properties and Operations</b> | Not Applicable  |
| <b>b) Measurement</b>                      | Not Applicable  |
| <b>c) Geometry</b>                         | Not Applicable  |
| <b>d) Data Analysis and Probability</b>    | Strong Evidence |
| <b>e) Algebraic Thinking</b>               | Not Applicable  |

**2) Addresses content-specific enduring understandings from the related Program of Studies standards.**

Strong Evidence

**3) Addresses content-specific skills and concepts from the related Program of Studies standards.**

Strong Evidence

<b>4) Content addressed is current, relevant and non-trivial</b>	<b>Strong Evidence</b>
<b>5) Provides opportunities for critical thinking/reasoning</b>	<b>Strong Evidence</b>
<b>6) Strengths, Weaknesses, Comments:</b> <ul style="list-style-type: none"> <li>• Specific strengths-which areas/concepts are covered exceptionally well?</li> <li>• Specific weaknesses-which areas/concepts would likely require supplementing?</li> </ul> <p>Very different and interesting examples promoting creative thinking. The content is covered in detail and goes beyond the Program of Studies. Each section has up-to-date examples and activities which engage students in problem solving, including the use of calculators.</p>	

<b>B. Functionality &amp; Suitability</b>	<b>Moderate Evidence</b>
<b>1) Suitability</b>	<b>Strong Evidence</b>
<ul style="list-style-type: none"> <li>• Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.</li> </ul>	
<b>2) Content quality</b>	<b>Strong Evidence</b>
<ul style="list-style-type: none"> <li>• Free from factual errors</li> <li>• Content is presented conceptually when possible—more than a mere collection of facts</li> <li>• Content included accurately represents the knowledge base of the discipline</li> <li>• Theories/scientific models contained represent a broad consensus of the scientific community</li> <li>• Interconnections among mathematical topics</li> </ul>	
<b>3) Connections to Literacy</b>	<b>Moderate Evidence</b>
<ul style="list-style-type: none"> <li>• Employs a variety of reading levels and is grade/level appropriate</li> <li>• Use of multiple representations-concrete, visual/spatial, graphs, charts, etc.</li> <li>• Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts at multiple levels of difficulty for a variety of learning styles.</li> <li>• Student text provides opportunity to integrate reading and writing</li> <li>• Uses vocabulary that is age and content appropriate</li> <li>• Focuses on critical vocabulary vs. extensive lists</li> <li>• Identifies key vocabulary through definitions in both text and glossary</li> <li>• The text is engaging and facilitates learning</li> <li>• Embedded activities enhance the understanding of the text</li> </ul> <p><i>Note: may apply to either student or teacher editions</i></p>	
<b>4) Connections to Technology</b>	<b>Moderate Evidence</b>
<ul style="list-style-type: none"> <li>• Integrates technology and reflects the impact of technological advances</li> <li>• Uses technology in the collection and/or manipulation of authentic data</li> <li>• Embeds web links as a mathematics resource.</li> </ul>	
<b>5) Support for Diverse Learners</b>	<b>Little or No Evidence</b>
<ul style="list-style-type: none"> <li>• Provides support for ESL students</li> </ul>	

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- Provides support for differentiation of instruction in diverse classrooms
- Challenge for gifted and talented students
- Support for students with learning difficulties

*Note: may apply to either student or teacher editions*

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**6) Strengths, Weaknesses, Comments:**

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

The reading level is advanced. Younger students may have difficulty in comprehending the material. Calculator instructions are given for activities. Also, a website is listed for using MINITAB, Excel, SPSS, and JMP as well. No ESL support and little differentiation in instruction. Provides challenge to gifted and talented students, but no support for students with learning disabilities.

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<b>C. Supports Inquiry and Skill Development</b>	<b>Strong Evidence</b>
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**1) Promotes Inquiry, research and Application of Learning**

Strong Evidence

- Provides opportunities for inquiry and research that includes activities such as gathering information, researching resources, observing, interviewing, and evaluating information, analyzing and synthesizing data and communicating findings and conclusions, formulating authentic questions to deepen and extend mathematical reasoning.
- Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, generalizing, justifying, etc.)
- Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
- Provides opportunities for application of learned concepts.
- Uses a variety of relevant charts, graphs, diagrams, number lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
- Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.

*Note: may apply to either teacher or student edition*

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**2) Skill Development**

Strong Evidence

- Provides opportunities to make sense of all mathematics
- Provides opportunities to recognize, create, and extend patterns.
- Provides opportunities for critical thinking and reasoning.
- Provides opportunities to justify/prove responses.
- Provides opportunities to ask deeper questions.
- Contains embedded activities (or extensions) that emphasize use of technology for problem solving

*Note: may apply to either teacher or student edition*

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**3) Strengths, Weaknesses, Comments:**

There are a variety of activities which engage students in higher-level thinking. Students are

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asked to solve problems which are rigorous, but relevant to their lives.

#### **D. Supports Best Practices of Teaching and Learning**

**Moderate Evidence**

##### **1) Engages Students**

Moderate Evidence

- Includes content geared to the needs, interests, and abilities of all students
- Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated

*Note: may apply to either teacher or student edition*

##### **2) Uses Assessment to Inform Instruction**

Little or No Evidence

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels

*Note: may apply to either teacher or student edition*

##### **3) Strengths, Weaknesses, Comments:**

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

The teacher edition lacks a variety of approaches to learning the material and differentiated evaluation materials. There is a chapter review in the student edition, but no assessment materials in the teacher edition for summative assessment. There is a lack of variety in the type of assessment available.

#### **E. Has an Organization/ Format that Supports Learning and Teaching**

**Moderate Evidence**

##### **1) Organizational Quality**

Moderate Evidence

- Print and/or electronic materials present minimal barriers to learners, but also add encouragement for students to stretch and make further explorations.
- Presents chapters/lessons in an organized and logical sequence
- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components, interactive software, calculators, physical and virtual manipulatives) as either student or teacher resources
- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.

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- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively
- Uses grade-appropriate type size
- Included media are durable, easy to use and have technical merit
- Construction appears to be durable and able to withstand normal use

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**2) Essential Components (beyond student and teacher text)**

Little or No Evidence

- Items identified as essential components support the learning goals and concept coverage of the basal

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**3) Strengths, Weaknesses, Comments:**

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Objectives are not stated for each topic. The text size and organization is not age appropriate. It does include clear illustration and graphics. Only has references to a website and calculator activities.

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**F. Has available Ancillary/ Gratis Materials**

*Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F*

**Strong Evidence**

**1) Ancillary/Gratis Materials**

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use
- Provide substantive learning opportunities and are congruent with student learning goals
- Provide opportunities for high-level thinking, assessment, and/or problem solving
- Provides opportunities for intervention.

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**2) Strengths, Weaknesses, Comments:**

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Solution manual for both instructor and student as well as an activity manual and assessment creation CD. The activity manual provides real-life opportunities for the students. The assessment CD provides multiple question formats on each topic (OR, MC, etc.). Also includes a correlation chart for the AP Statistics exam requirements.

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